



<p>Santa Fe, New Mexico  <a href="http://acmasocialmarketing.com">http://acmasocialmarketing.com</a></p>	<p><b>ACMA Social Marketing</b>  Digital Communications</p>
<p><b>Technology Name:</b> Digital Health</p> <p><b>Technology Description:</b> De las Mias is a digital health product and service aimed at Latinas - It is a healthy lifestyle platform for Latinas who are contemplating and/or taking action to improve their health. Our unique approach is culturally tailored, built on community, and grounded in an evidence-based behavior change model. Our content is culturally and linguistically tailored, encouraging Latinas to be their healthiest selves through our mutual love of family, food and language. Although De las Mias is currently part of ACMA Social Marketing, our goal is to have it be a stand alone business and not necessarily part of ACMA Social Marketing.</p> <p><b>Company Description:</b> ACMA Social Marketing is a multicultural health communications firm. We specialize developing audience centered approaches to health education and promotion. We are the most experienced health fotonovela producers in the United States and seasoned social marketers. We conduct audience centered formative research and evaluation in Spanish and English, as well as providing consulting in designing audience centered interventions related to health. We have been in business for over 25 years.</p>	

<p>West Lafayette, Indiana  <a href="https://akrotome.com/">https://akrotome.com/</a></p>	<p><b>Akrotome Imaging, Inc.</b>  Diagnostics, Medical Devices</p>
<p><b>Technology Name:</b> Quenched, Smart, Fluorescent Probes for Guided Resection of Solid Cancer Tumors</p> <p><b>Technology Description:</b> We have a unique portfolio of quenched, fluorescent probes that target cancer marginal tissue for the guided resection of solid cancers. Unlike other probes which require administration of large amounts of probe by IV hours or days before surgery, our probes can be topically administered (either in vivo or ex vivo) during surgery and activate in as little as 5 minutes. This flexibility enables a shorter and more cost-effective path to market as regulatory overhead is reduced significantly.</p> <p><b>Company Description:</b> Akrotome is focused on the clinical translation of cancer-targeted molecular probes into enhanced approaches for surgery and diagnostics, leading to improved outcomes and patient quality of life while positively impacting healthcare economics. With initial focus on the treatment of solid tumors, Akrotome's technology portfolio of protease-binding/activated, quenched, near-infrared (NIRF) probes supports a wide range of clinical applications from tumor margin detection to therapeutic monitoring, companion diagnostics, and management of inflammatory disease.</p>	



Hampton, New Hampshire	<b>Antaya Science &amp; Technology</b> Medical Devices
<p><b>Technology Name:</b> Proton Beam Radio Therapy Equipment</p> <p><b>Technology Description:</b> NCI SBIR grant funding contributed to the success of two products slated for commercialization in 2018 that will advance proton therapy- the TAAC Technically Advanced Affordable Cyclotron, and the HII High Intensity proton Injector for fast pencil beam scanning PT. These products are big step forward in replacing IMRT. There is one additional component that needs to be developed to achieve our aim- a compact room sized beam delivery PT Pedestal (PTP), now in development as well at AS&amp;T. This component will make it possible for proton therapy systems to have a cost per room installation comparable with IMRT X-rays.</p> <p><b>Company Description:</b> (AS&amp;T) was founded in October 2012, by Dr Timothy Antaya, a world-renowned accelerator physicist. At AS&amp;T, we design super conducting cyclotrons for use in the fields of PET imaging isotope production and proton therapy. The cost and size benefits resulting from designs made at AS&amp;T will allow hospitals everywhere to utilized state of the art imaging and radiation therapies for communities that currently do not have access to PET scan imaging and Proton therapy due to the cost and limits of the current technologies employed.</p>	

San Luis Obispo, California <a href="http://www.appliedbiotech.org">http://www.appliedbiotech.org</a>	<b>Applied Biotechnology Institute</b> Biotechnology for Healthcare
<p><b>Technology Name:</b> Oral Vaccine for Hepatitis B</p> <p><b>Technology Description:</b> We have developed a low cost, heat stable oral vaccine candidate for hepatitis B. This will allow a more convenient delivery system as well as the potential for a more robust vaccine in non-responders. In addition to this initial product, several other vaccine candidates are in early stages of development and this product will set the precedent of this new technology.</p> <p><b>Company Description:</b> ABI focuses on using its proprietary technology to produce proteins where there is a unique advantage over other currently used platforms. This includes the development of animal-free sourced proteins and the ability to encapsulate proteins suitable for the oral delivery of vaccines. The first commercial products, purified reagent proteins, have entered the market. The next phase is commercialize higher values products that require FDA approval. An orally delivered hepatitis B vaccine is our lead candidate in this area.</p>	



<p>Santa Barbara, California  <a href="http://www.Aptitudemedical.com">http://www.Aptitudemedical.com</a></p>	<p><b>Aptitude Medical Systems</b>          Biotechnology for Healthcare, Diagnostics</p>
<p><b>Technology Name:</b> Aptamer</p> <p><b>Technology Description:</b> New Description: Aptitude is making aptamers truly useful for the first time. We developed a novel discovery platform in 2014, named Particle Display (PD), which uniquely enables high-throughput screening-based aptamer discovery, where every aptamer will be quantitatively measured for its affinity and specificity, and then either retained or rejected based on the result. We are able to discover aptamers for “impossible” targets that failed repeatedly in previous attempts, and also uniquely identify fully modified aptamers that possess superior stability. Our technology has been validated by multiple industry partners.</p> <p><b>Company Description:</b> Aptitude Medical Systems (Aptitude) unlocks the potential of aptamers to solve the fundamental problems of antibodies. Our technology originated from 10 years of dedicated R&amp;D in UCSB and Stanford. We received multi-million dollars in funding from investors and non-dilutive funding sources, and have established industry collaboration with multiple top Dx and pharma companies. Our team of 10+ full-time researchers are complemented by a network of advisors who possess decades of experience in BD, clinical development, and R&amp;D.</p>	

<p>Portland, Oregon  <a href="http://www.aronorabio.com/">http://www.aronorabio.com/</a></p>	<p><b>Aronora, Inc</b>          Biotechnology for Healthcare</p>
<p><b>Technology Name:</b> Recopimab</p> <p><b>Technology Description:</b> Our recent studies suggest that coagulation factor XII (FXII) contributes to the progression of pathological blood clots (thrombosis), and thereby is a potential target for a new class of safe antithrombotic drugs. Since data suggests that FXII does not contribute to bleeding, and FXII deficiency is an asymptomatic condition in mammals, FXII inhibition is unlikely to have significant adverse effects. We have generated a proprietary murine monoclonal antibody against human FXII that was created by immunizing FXII knockout mice, and verified its anticoagulant and antithrombotic effects in primate experiments.</p> <p><b>Company Description:</b> Aronora is a biotechnology company established for the commercialization of proprietary anticoagulant (blood-thinning) and thrombolytic (clot-busting) products that do not cause bleeding. The product candidates are injectable anticoagulant and clot-busting biologic agents, xisomab, recopimab, and E-WE thrombin (ProCase). These products have significant safety advantages over currently used agents that all induce bleeding, without exception, because they target a vital physiological function of</p>	



blood, hemostasis (formation of good clots outside the vessel). All three products in our pipeline are currently supported by Phase II/IIB SBIR grants from the NIH.

<p>Research Triangle Park, North Carolina  <a href="http://www.AscentBioNano.com">http://www.AscentBioNano.com</a></p>	<p><b>Ascent Bio-Nano Technologies, Inc.</b>  Medical Devices, Research Tools</p>
<p><b>Technology Name:</b> Separation of Cells and Particles Using Sound</p> <p><b>Technology Description:</b> We develop gentle and safe cell/particle separation research tool and medical device based on world leading patented acoustofluidic technology. Our technology will not damage cells, which will enable research and applications that conventional technologies could not offer. We are developing a series of applications based on this technology platform, including cancer diagnostics, cell sorter, blood separation, etc.</p> <p><b>Company Description:</b> Ascent Bio-Nano Technologies, Inc. is a research spin-off formed in 2012. It is based in Research Triangle Park, NC. The mission is to develop biocompatible and biosafe cell/particle separation research tools and medical devices. The company motto is Innovation for Impact. Our passion is to commercialize world-leading acoustofluidic technologies to advance research, enhance healthcare, and improve life quality.</p>	

<p>Mountain View, California  <a href="http://www.astraeatherapeutics.com">http://www.astraeatherapeutics.com</a></p>	<p><b>Astraea Therapeutics</b>  Pharmaceuticals</p>
<p><b>Technology Name:</b> Novel Therapies for Smoking Cessation and Prescription Opioid Abuse</p> <p><b>Technology Description:</b> The innovation in Astraeas technology (drug candidates), are that they are novel first-in-class approaches for (i) non-addicting pain therapy as replacements for prescription opioids and for opioid dependence (ii) a novel drug candidate for smoking cessation and relapse therapy. The key differentiators are (i) pain drug better than morphine and possesses none of the opioid-liabilites such as constipation, respiratory depression, risk of overdose, or addiction liability. (ii) the smoking cessation treatment drug candidate prevents RELAPSE to smoking, unlike current drugs varenicline and bupropion, both of which do not block relapse and have very low success rates for long term abstinence.</p> <p><b>Company Description:</b> Founded in 2009, Astraea Therapeutics is a privately-held biopharmaceutical company, with a development pipeline of advanced small-molecule drug candidates for treatment of smoking cessation, sickle cell pain, chronic pain, prescription opioid abuse and replacement therapy, substance abuse (alcohol, cocaine); areas underrepresented in the pharma industry pipelines. Astraeas portfolio reflects our efficient drug discovery process and cutting-edge target validation, to advance pioneering approaches and first-in-class drug candidates for treatment of difficult-to-treat health disorders. Astraeas technology is centered around two major molecular targets implicated in</p>	





CNS diseases and neurodegeneration, for which Astraea has deep, long-standing expertise and mature development programs.

<p>Boca Raton, Florida  <a href="http://www.ventusoft.com">http://www.ventusoft.com</a></p>	<p><b>Aventusoft LLC</b>  Medical Devices</p>
<p><b>Technology Name:</b> Aventusoft LLC</p> <p><b>Technology Description:</b> The non-invasive HemoTag system is designed for wirelessly measuring and reporting cardiac function in patients with heart failure. The hemodynamic measurements are used by physicians for heart failure management to reduce heart failure hospitalizations. Our goal is to help hospitals avoid penalties, increase revenue from new opportunities and enhance quality ratings through improved patient care. HemoTag will allow the management of heart failure patient across the continuity of care from emergency department, to in-patient, to out-patient clinic, and to the home.</p> <p><b>Company Description:</b> Aventusoft LLC, an R&amp;D company, is an innovator of disruptive signal processing technologies. We specialize in biologically inspired algorithms that draw from human processes to perform acoustical signal processing tasks. Our focus is in building technologies that change lives. The team has a breadth of competency including bio-medical, psychoacoustics algorithms, machine learning, software programing, DSP prototyping, medical-devices, cloud computing, and conducting IRB approved clinical trials. Subject matter and operational domain expertise in the development of novel algorithms, sensor hardware, machine learning, biological modeling, auditory models and cardiovascular pathophysiology.</p>	

<p>New Orleans, Louisiana  <a href="http://www.axosim.com">http://www.axosim.com</a></p>	<p><b>AxoSim Technologies</b>  Pharmaceuticals, Research Tools</p>
<p><b>Technology Name:</b> Nerve-on-a-Chip</p> <p><b>Technology Description:</b> AxoSims Nerve-on-a-Chip is the first-ever 3D in vitro model of the nervous system to deliver human-relevant data to predict clinical outcomes prior to human trials. Employing breakthroughs in stem cell biology, biomaterials, and tissue engineering, the patent-pending platform replicates living human biology in both form and function, enabling pharmaceutical companies to obtain clinically relevant results from a benchtop model. Current applications provide preclinical service based results for drug compounds to test both safety, with our neurotoxicity model, and efficacy, using AxoSims custom disease models to mimic disease states such as MS and ALS.</p> <p><b>Company Description:</b> AxoSim is the first Organ-on-a-Chip company to focus exclusively on the nervous system. AxoSims Nerve-on-a-Chip platform predicts clinical performance from</p>	



the benchtop, helping pharmaceutical and defense clients develop safer and more effective therapies, drugs, and countermeasures. This platform grows real, living human nerves in a proprietary 3D environment to provide a more accurate, efficient, and cost-effective alternative to animal testing compared to anything available on the market.

<p>Montville, New Jersey  <a href="http://bioinvenu.com">http://bioinvenu.com</a></p>	<p><b>BioInvenu</b>  Research Tools</p>
<p><b>Technology Name:</b> BioInvenu</p> <p><b>Technology Description:</b> Cellular signal transduction depends on protein-protein interactions (PPIs). Extracellular signals and protein post-translation modifications can regulate PPIs. Therefore, we can monitor a protein signal transduction pathway through PPI. LinkLight Technology assesses PPIs in live cells. The technology is not only can be used to find compounds inhibiting PPIs, but more commonly be used to find compounds modulating a drug target through its PPI signaling pathway. For examples, we can assess GPCR-mediated -arrestin signaling pathways by utilizing GPCR/-arrestin interactions, but also assess newly developed GPCR-mediated 14-3-3 signaling pathway through GPCR/14-3-3 interactions. In addition, conventional "undruggable" proteins could also be accessed based on their protein interaction networks. Thus, the technology can be broadly applied for drug target enabling assays.</p> <p><b>Company Description:</b> BioInvenu Corporation is a biotech company. Our mission is to provide the proprietary cell-based assay products and services to drug discovery researchers. BioInvenu is dedicated to develop assay products and services by utilizing a novel cell-based protein-protein interaction assay technology, LinkLight technology. BioInvenu also interest to collaborate with business partners to identify new drug leads and candidates for highly valued drug targets.</p>	

<p>Ann Arbor, Michigan  <a href="http://www.biomedware.com">http://www.biomedware.com</a></p>	<p><b>BioMedware, Inc</b>  Modeling, Simulation, Software and Apps</p>
<p><b>Technology Name:</b> METRIC Software to Measure Cancer Health Environment</p> <p><b>Technology Description:</b> A growing body of literature is demonstrating how environmental and policy intervention can substantially reduce chronic disease burdens by helping people develop healthy behaviors. Contrasting with the explosive growth in the availability of data related to these environmental features, software tools that allow users to develop their own environmental metrics and take advantage of the wealth of resources from interactive and frequently updated web sources are lacking. The objective of this project is to develop the first GIS-based software that offers tools specifically designed for the automated access,</p>	



homogenization, and visualization of data for computing and disseminating customized environmental metrics.

**Company Description:** BioMedware is a research and software development company with considerable experience creating theory, algorithms, and software implementations for spatial analysis. Its mission is to research, develop and disseminate innovative software and database technologies for the identification, description and quantification of spatial and space-time patterns in health outcomes and their causative factors.

Watertown, Massachusetts  
[www.biosensics.com](http://www.biosensics.com)

**BioSensics LLC**  
 Medical Devices, Diagnostics

**Technology Name:** Computed Tomography-based Rigidity Analysis (CTRA)

**Technology Description:** Computed Tomography-based Rigidity Analysis (CTRA) software will be the only fracture risk assessment tool indicated for use in bone cancer. It is unique because it assesses both bone material and geometric properties. The core competency of BioSensics has historically been the development of wearable sensors for healthcare. In the last two years, BioSensics has begun to move into the diagnostic medical imaging space. CTRA is of critical strategic importance in this expansion.

**Company Description:** BioSensics is a research and product development company specializing in wearable sensors for healthcare. In addition to the products we sell, we offer custom telehealth solutions and algorithm licensing opportunities for corporate, government, and academic partners.

San Francisco, California  
<http://www.cairnbio.com>

**Cairn Biosciences**  
 Pharmaceuticals, Research Tools

**Technology Name:** High-Throughput, Multiplexed Fluorescent Live Cell Assays

**Technology Description:** Cairn's assay platform enables scalable development of novel assays to map compound mechanism of action in live cells with the aim of improving the drug discovery industry's ability to make preclinical predictions of human drug responses. A key component of our capabilities is our focus on developing live cell assays that report the spatiotemporal modulation of signal transduction and cellular phenotypes by compounds under investigation. We are pursuing parallel development of our: (1) innovative high-throughput live-cell microscopy assay platform and machine-learning analysis tools; (2) next-generation induced pluripotent stem cell model engine and (3) proprietary microfluidic-enabled SmartPlate technology that we intend to converge into a powerful new preclinical drug discovery product engine.



**Company Description:** The development of next-generation live cell assays to guide the more precise, efficient and rapid discovery of safe and efficacious medicines for serious diseases is the mission of Cairn Biosciences. We provide the only high-throughput assay platform that rapidly pinpoints compound mechanism of action and potential toxicities through its unique ability to monitor multiple facets of previously inaccessible biology in live cells in real-time.

Concord, Massachusetts www.cellardoorlabs.com	<b>Cellar Door Labs</b> Food Science and Nutrition
<p><b>Technology Name:</b> NutriSnap</p> <p><b>Technology Description:</b> CDL has developed NutriSnap™, a mobile application that interprets the nutrition and ingredients information directly from photos of packaged food items. NutriSnap employs state-of-the-art image analysis algorithms to automatically extract this information from any box, bag, can, or other packaged food item with a nutrition facts panel. AI-based cross-validation and categorization algorithms further refine and organize the collected information providing an accurate and continuously up-to-date picture of food products in the marketplace.</p> <p><b>Company Description:</b> Cellar Door Labs (CDL) was founded with a mission to improve quality of life by leveraging modern techniques from AI, machine learning, computer vision, and robotics. Launched in 2015 by Neal Checka and Dr. Shawn Schaffert, CDL has developed intelligent automation services for the healthcare and nutrition industries. Mr. Checka and Dr. Schaffert are seasoned technical leaders and have proven experience in developing technology solutions under the SBIR program and successfully transitioning them to a variety of commercial markets including robotics, healthcare, and social media.</p>	

Winston-Salem, North Carolina www.cellfbio.com	<b>CELLF-Bio, LLC</b> Biotechnology for Healthcare, Medical Devices
<p><b>Technology Name:</b> BioSphincter- Bioengineered Internal Anal Sphincter</p> <p><b>Technology Description:</b> The BioSphincter™ is bioengineered from cells and stem cells, retrieved in a simple biopsy procedure, from the patients own cells (eliminating rejection risk). The newly grown autologous sphincter is implanted over the defective sphincter, becoming a new continuum of gut, and reconnects with the local neural reflexes in the area. Cellf BIO maintains patent protection for the critical platform technologies and processes. These technologies also enable Cellf BIO to create additional products for urinary incontinence(UI) and esophageal reconstruction.</p> <p><b>Company Description:</b> Cellf BIO is an innovative biomedical research company focused on the development of regenerative tissue solutions for Gastrointestinal disorders. Cellf BIO is</p>	



developing a novel regenerative medicine-based therapy for fecal incontinence. It is a problem faced by 1 in 12 people, or 18 million adults in the US. Cellf BIO manufactures bioengineered sphincters using autologous progenitor cells that replace the dysfunctional internal anal sphincter, the root cause of FI. This new product, called a BioSphincter™, allows the patient to regain full control of bowel movements and rejuvenate their quality of life.

<p>La Jolla, California  <a href="http://www.cennabiosciences.com">http://www.cennabiosciences.com</a></p>	<p><b>Cenna Biosciences Inc.</b>  Pharmaceuticals</p>
<p><b>Technology Name:</b> Drug development for Alzheimer's disease</p> <p><b>Technology Description:</b> CENNA has a novel proprietary patented technology that arrests the production of A. The Company has developed a novel target and has discovered several lead compounds that are active in vivo. CENNA's candidates are small peptides derived from Presenilin-1, which is part of the -secretase complex. CENNA's peptides inhibit A by specifically binding APP at a different site from the - and -secretase cleavage sites and arresting its processing to A without inhibiting - or -secretase activities. Our lead candidate P8 inhibits the production of A by over 50%, is stable, and can be delivered to the brain.</p> <p><b>Company Description:</b> Cenna Biosciences is a biopharmaceutical company dedicated to the discovery and development of novel drugs to prevent and treat Alzheimer's disease. Cenna has several disease-modifying peptide and small molecule drug candidates, with its lead candidate in pre-clinical development.</p>	

<p>Salt Lake City, Utah  <a href="https://www.clinacuity.com">https://www.clinacuity.com</a></p>	<p><b>Clinacuity, Inc.</b>  Healthcare IT</p>
<p><b>Technology Name:</b> Healthcare IT</p> <p><b>Technology Description:</b> We apply artificial intelligence to extract information from text found in EHRs, giving much faster and easier access to important patient clinical information, eventually allowing for significant time savings and increased healthcare provider efficiency. For the increased revenue and convenience, healthcare organizations would acquire our product as a service with integration into their commercial EHR.</p> <p><b>Company Description:</b> Clinacuity, Inc. is a high-technology software development company focused on unlocking the unstructured electronic health record (EHR) data, on products to provide clinicians with actionable clinical information that supports clinical care in real time. Clinacuity was incorporated in Utah in 2012.</p>	





Chicago, Illinois <a href="http://www.coaptengineering.com">http://www.coaptengineering.com</a>	<b>Coapt, LLC</b> Medical Devices
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**Technology Name:** COMPLETE CONTROL system

**Technology Description:** In late 2013 Coapt introduced the COMPLETE CONTROL system for upper limb prosthetics. This was the first time pattern recognition algorithmic technology was commercially applied to myoelectric prostheses, making them natural and intuitive for users to control. Pattern recognition uses an array of electrodes to detect intertwined combinations of muscle signals that are repeatable for an amputees natural intended motions. Coapts system is the first significant departure from single- or dual-site myoelectric control and has development roots dating back into the 1960s. Research funding accelerated after 2005 and directly led to this technology that benefits so many today.

**Company Description:** Coapt was formed to transition research rehabilitation technologies to the commercial market. Coapt licensed a pattern recognition control system developed at the Rehabilitation Institute of Chicago and transformed it from a mature research prototype to a commercial product. The mission of Coapt is to use our strong clinical research background, licensed technologies, and our reputation for innovation and clinical implementation to develop, market, and distribute products to improve the quality of life for prosthesis users. Our vision is to use our clinically oriented research background and strong strategic partnerships to commercialize value-add componentry for the medical device industry.

Reno, Nevada <a href="http://contextualchange.com">http://contextualchange.com</a>	<b>Contextual Change LLC</b> Other
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**Technology Name:** Mindfulness and Acceptance Through Web-Based Guided Self-Help for College Students (and Other Settings)

**Technology Description:** ACT on College Life (ACT-CL) is innovative in terms of 1) the "guided" aspect, with therapists being able to monitor their clients' use of the program, 2) the reliance on ACT, a transdiagnostic approach, 3) the inclusion of a "training" feature as part of the program that is taught by its developer, and 4) the highly interactive and flexible programming that also allows students to pick their primary problem. NHP, our partner, sells most books and trainings on ACT and thus, although new to the CCC market, NHP is well positioned to help market this product.

**Company Description:** Contextual Change LLC provides in-person and online training experiences and materials to behavioral healthcare and other behavior change providers. Historically, we have published psychology-oriented books through both our prior company, Context Press, and through our partnership with New Harbinger Publications. Contextual Change is now also developing web-based psychotherapy products founded on mindfulness and acceptance-based interventions, particularly Acceptance and Commitment Therapy (ACT). We chose the college applications to be our first area of development for web-based



products given our groups expertise and the incredible need in college campuses for products targeting the prevention and treatment of mental health problems.

<p>San Francisco, California  <a href="http://delpor.com/">http://delpor.com/</a></p>	<p><b>Delpor, Inc.</b>          Biotechnology for Healthcare, Medical Devices, Pharmaceuticals</p>
<p><b>Technology Name:</b> Delpor, Inc.</p> <p><b>Technology Description:</b> A key challenge in drug delivery is the achievement of zero order release (i.e., a steady rate of diffusion over time). Most systems produce release rates which are high in the beginning but exponentially. Delpors PROZOR technology enables zero order release of drugs from a non-mechanical implantable drug delivery device based on a unique formulation. The formulation is a mixture of risperidone and a group of acid producing excipients. During operation, acid equivalents are produced enhancing the solubility of the drug and driving diffusion. Risperidone and other drugs are not soluble in water but exhibit high solubility at acidic conditions.</p> <p><b>Company Description:</b> Delpor's technologies enable the sustained release of drugs through a small subcutaneous implant device, lasting for several months. The device is implanted under the skin in the upper arm, during a simple 10-minute in-office procedure. The company is focusing on antipsychotics and biologics for improved medication adherence, safety, and convenience. The potential clinical benefit and commercial upside of Delpors products is comparable to new agents, however, the technical risk is substantially lower, and the time to approval substantially shorter as the company is using approved APIs. Delpors lead product is a 6-month formulation of Risperidone for schizophrenia maintenance treatment.</p>	

<p>Newark, California  <a href="http://www.devicefarmtech.com">http://www.devicefarmtech.com</a></p>	<p><b>DeviceFarm</b>          Medical Devices</p>
<p><b>Technology Name:</b> Medical Device to Cure Fungal Nail Infections</p> <p><b>Technology Description:</b> Our plasma device would be the first gas-based therapy to treat fungal nail because gas can penetrate the infected nail and kill the fungus where all other treatments cannot reach.</p> <p><b>Company Description:</b> Clinical-stage medical device company building a treatment to cure fungal nail infections.</p>	



Research Triangle Park, North Carolina <a href="http://www.dignifytherapeutics.com">http://www.dignifytherapeutics.com</a>	<b>Dignify Therapeutics LLC</b> Pharmaceuticals
<p><b>Technology Name:</b> Drug Development for Urologic and Gastrointestinal Disorders</p> <p><b>Technology Description:</b> The DTI-100 program is focused on drug-induced "on demand" bladder and bowel voiding for people with severe bladder and bowel retention. Since physiological voiding only lasts 1-2 minutes, the DTI-100 target product profile is designed as a rapid-onset (2-5 min), short duration (~10 min) therapy. Rapid onset is achieved by parenteral (subcutaneous, sublingual, intranasal) administration for rapid systemic absorption. Short duration is achieved by rapid plasma degradation of DTI-100 to inactive, rapidly eliminated amino acids within minutes. A short plasma half-life enables administration of multiple doses throughout the day without drug accumulation.</p> <p><b>Company Description:</b> Dignify Therapeutics is focused on developing novel bladder and bowel therapies to restore the dignity of voluntary excretory function for patient populations with voiding dysfunction. The combining of novel pharmaceutical agents with drug delivery technology will provide a safe, effective, convenient alternative to current invasive therapies for bladder and bowel emptying.</p>	

Vestavia Hills, Alabama <a href="http://endomimetics.com/">http://endomimetics.com/</a>	<b>Endomimetics, Inc.</b> Biotechnology for Healthcare
<p><b>Technology Name:</b> Bionanomatrix Coating of Medical Devices</p> <p><b>Technology Description:</b> Over 500,000 U.S. patients have end stage renal disease, and over 80% of them utilize hemodialysis. A significant problem for dialysis patients is the development of a functioning and durable vascular access, preferably an arteriovenous fistula (AVF). After creation, about 60% of AVFs fail to mature successfully for dialysis use. This is due to inadequate vasodilation and smooth muscle cell hyperplasia at the distal venous anastomosis. The Endomimetics bionanomatrix gel is used at the time of AVF creation. The gel recruits endothelial cells, enhances vasodilation and limits smooth muscle cell proliferation which promote AVF maturation.</p> <p><b>Company Description:</b> Endomimetics, LLC has developed a BioNanomatrix that can be used to coat medical devices and mimic human tissue which minimizes the need for additional surgeries, improves the longevity of the device, reduces complications associated with having foreign items implanted in your body.</p>	



San Francisco, California	<b>EndoOrthopaedics, Inc.</b> Medical Devices
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**Technology Name:** Fracture Repair

**Technology Description:** Fracture care is evolving. 12 years ago, successful plating systems for wrist fractures did not exist. Now they do. But these systems are still inadequate for the fractures located "too close" to the joint. As a surgeon, educator, scientist and inventor, I have been thinking about how to deal with these problems that I have been confronted with on a regular basis for 2 decades or more. I now have the solution, thanks to the NIH SBIR grants. IP has been filed, and prototypes tested. Commercialization can begin with regulatory approval. A clear exit or a new company awaits. .

**Company Description:** EndoOrthopaedics offers a revolutionary platform technology for the treatment of long bone fractures in the extremities with modular, adjustable implants that lie entirely within the bone and are specifically designed for the heretofore problematic fractures that are located near the joint surfaces and are thus not amenable to conventional plate-and-screws or intramedullary rod treatments. The first device will be for distal radius fractures at the wrist. This is a well established clinical need with a large volume of patients that require care. Additional devices will address proximal humerus fractures at the shoulder, supercondylar fractures at the elbow, and ankle fractures.

Boston, Massachusetts <a href="http://www.eyephonedevices.com">http://www.eyephonedevices.com</a>	<b>Eyephone LLC</b> Healthcare IT, Diagnostics
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**Technology Name:** Mobile Health Care for Eye Doctors

**Technology Description:** EyeTurn from EyePhone delivers accurate and robust strabismus (eye alignment) test results using only a mobile app, not requiring purchase of a dedicated device or add-on module, this is completely novel and unique in the market. A vision screening program performed by a lay person using EyeTurn rather than by a skilled eye care professional will significantly reduce program cost and yet bring more patients to the doctor. EyeTurn takes a picture and automatically performs a Hirschberg test providing the eye deviation measurement. The connectivity of the EyeTurn app will provide important telemedicine benefits without any extra hardware cost.

**Company Description:** EyePhone LLC develops state-of-the-art smartphone-based solutions that help with the measurement, screening, diagnosis, and treatment of various eye diseases or vision disorders, allowing eye doctors to provide faster, easier, and cheaper medical care to the affected patients. EyePhones prototypes contribute to the mission of tele-ophthalmology, a new telemedicine concept tailored for eye doctors. Non-dilutive grant funds and a capital-efficient mindset ensure prototype development with the lowest possible cost.



EyePhone is a spin-off from the Harvard Medical School and it is working with this institution to obtain exclusive licensing of the relative IP.

<p>Bozeman, Montana  <a href="http://www.genesearchinc.com">http://www.genesearchinc.com</a></p>	<p><b>Genesearch Inc.</b>  Medical Devices</p>
<p><b>Technology Name:</b> Embryology Devices</p> <p><b>Technology Description:</b> We have created the most sophisticated and versatile embryo manipulation tool on the market. Using our patented suck-and-puncture method, we are able to perform procedures that are currently very costly, if not impossible to do.</p> <p><b>Company Description:</b> GeneSearch has created the most sophisticated and versatile and patented embryo manipulation tool on the market. Using our patented suck-and-puncture method, we are able to perform procedures that are currently very costly, if not impossible to do. The traditional method of embryo manipulation involves compression of the embryo. GeneSearchs proprietary tool allows manipulation of the embryo with no compression, which opens the possibility for new methods in embryology that simply can't be done using current technology.</p>	

<p>Athens, Georgia  <a href="https://www.glycoscientific.com/">https://www.glycoscientific.com/</a></p>	<p><b>Glycoscientific</b>  Research Tools</p>
<p><b>Technology Name:</b> Development of Site-Specific Antibodies to Proteins Modified by O-GlcNAc</p> <p><b>Technology Description:</b> GlycoScientific anticipates that antibodies recognizing O-GlcNAc modified peptides/proteins in a site-specific manner will enjoy a commercial success similar to that of site-specific antibodies recognizing phosphorylated peptides/proteins. There are currently no site-specific O-GlcNAc antibodies or affinity reagents of any kind for this particular class of epitopes. We predict that the level of competition will be low, because of the high barrier imposed by both the difficulty in generating these reagents, and the Intellectual Property portfolio that GlycoScientific is in the process of developing. Thus, we feel that GlycoScientific will have a significant competitive advantage in this area.</p> <p><b>Company Description:</b> GlycoScientific is focused on the development of carbohydrate-related reagents to serve the scientific, diagnostic and therapeutic communities. The company envisions a range of commercial products resulting from this effort, including antibodies for various glycoconjugates (including site-specific antibodies for O-GlcNAc modified peptides), standard glycans and glycoproteins, and a variety of methods for glycan quantification. We firmly believe that there is a significant unrealized market potential for glycan/glycoprotein specific reagents.</p>	





Saint Louis, Missouri <a href="http://www.hcimpact.com">http://www.hcimpact.com</a>	<b>Health Communication Impact, LLC</b> Healthcare IT, Research Tools
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**Technology Name:** MIYO (Make It Your Own) Clinical Trials Module

**Technology Description:** Make It Your Own, or MIYO (pronounced mee-yo), is an online tool that provides access to a web-based health communication resource that can assist clinical trial sponsors and staff in producing their own versions of high-quality, audience-tested, evidence-based clinical trials promotion and recruitment materials targeted to their audience. Users build these materials by choosing from a menu of evidence-based approaches, then customize them by choosing from a library of images, messages and graphic designs. MIYO then renders their creations into electronic documents that can be printed, e-mailed, texted, used online or distributed in other ways to target audiences.

**Company Description:** Health Communication Impact, LLC (HCI) is a small, woman-owned enterprise that seeks to help organizations improve the health and well-being of their employees, customers, and/or constituents by delivering evidence-based, easy to understand health information. Using its vast experience and expertise in health and cancer communication development (e.g., cultural appropriateness, tailored and targeted messaging, audience segmentation), technology-based programs, public health, and operational efficiency, HCI develops tools, techniques, and technology-based applications that will better reach target audiences, influence attitudes, and spark health behavior change.

Purcellville, Virginia <a href="http://www.HealthcareTM.com">http://www.HealthcareTM.com</a>	<b>Healthcare Technologies and Methods, LLC</b> Healthcare IT
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**Technology Name:** Interactive, Personalized System for Hearing Aid and Communications Education and Training

**Technology Description:** TELLYHealth is an innovative, interactive and personalized telehealth system that enables a patient, at home, to view health education videos and other vital information, and answer various healthcare questions at home on their TV using their mobile device as a remote. The patients system communicates with their healthcare professionals secure website. This integrated cloud-based platform and its patient-tailored interactive video and animation content are specially designed for ease of use and comprehension by older adults who are not tech-savvy. TELLYHealth will initially be applied to audiology and subsequently will be applied to chronic illnesses such as diabetes and heart failure.

**Company Description:** We develop innovative, interactive, and personalized information technology and content that improve self-care education and communications between older patients and their healthcare providers. Our interdisciplinary team applies: (1) human factors



to enhance system usability, (2) health literacy principles to optimize learning, and (3) cost-effective methods to maximize healthcare providers' ROI. We develop and test our systems then provide training and technical support for our healthcare system clients. Our products promote self-efficacy and better health outcomes for older adults who are not tech-savvy. We believe our patent-pending TELLYHealth system will become a "must have" for patients fitted with new hearing aids.

Woburn, Massachusetts <a href="http://www.thehearth.org">http://www.thehearth.org</a>	<b>Hearthstone Alzheimer Care</b> Other
<p><b>Technology Name:</b> Hearthside Book Club</p> <p><b>Technology Description:</b> Hearthside Book Club is an innovative reading and discussion activity for persons with varying levels of dementia. The activity can be used by any person with dementia, whether they are living in nursing homes, assisted living facilities, or their private homes. The innovation inherent in the technology relates to the setup of the book and the careful development of the content. Without proper content development by subject matter experts at Hearthstone, such books would not be possible.</p> <p><b>Company Description:</b> Hearthstone's mission is to create a life worth living for those with cognitive challenges by enriching lives and offering hope. Hearthstone manages residential care facilities for persons with dementia. Hearthstone's Training Institute conducts extensive training with memory care facilities across the US, using its exclusive onsite embedding process. Hearthstone's Research Division conducts NIH-funded research, as well as in-house evaluation to maintain high quality care and programming. Products and training programs developed by the Research Division are initially implemented within our residences (for market differentiation), are next offered to our Centers of Excellence, and finally made available to the public.</p>	

Doylestown, Pennsylvania <a href="http://imcarebiotech.com">http://imcarebiotech.com</a>	<b>ImCare Biotech</b> Biotechnology for Healthcare, Diagnostics, Medical Devices, Pharmaceuticals
<p><b>Technology Name:</b> A Novel Biomarker for Hepatocellular Carcinoma</p> <p><b>Technology Description:</b> We are currently developing a new biomarker and the technology is based on the quantitative assessment of a protein called LC-SPIK (Liver cancer-Serine Protease Inhibitor Kazal), which is secreted only in cases of liver cancer. Our technology can effectively predict HCC without interference from other diseases. LC-SPIK is a more sensitive and specific biomarker than the current existing biomarker such as AFP, particularly in detecting early stage HCC.</p>	



**Company Description:** We are currently developing a new biomarker that is based on the quantitative assessment of a protein called LC-SPIK (Liver cancer-Serine Protease Inhibitor Kazal), which differs from normal pancreatic SPIK and is secreted only in cases of liver cancer. Using a monoclonal anti-LC-SPIK antibody IMB-CA1, an ELISA test technology has been developed and we have assessed the performance of LC-SPIK in 146 clinical subjects thus far. The biomarker is more sensitive and specific and can diagnose Liver Cancer earlier than the current standard of AFP.

<p>Seattle, Washington  <a href="http://impelnp.com/">http://impelnp.com/</a></p>	<p><b>Impel NeuroPharma</b>          Biotechnology for Healthcare, Medical Devices, Pharmaceuticals</p>
<p><b>Technology Name:</b> Precision Olfactory Delivery (POD) Device Platform</p> <p><b>Technology Description:</b> Impel NeuroPharmas POD nasal drug delivery platform is designed to deliver drugs to the upper nasal cavity for improved biodistribution, propelling the drug consistently and accurately with an HFA canister. By delivering therapeutics to the upper nasal cavity, the POD nasal delivery platform takes advantage of the vascular rich olfactory region for improved bioavailability and has the potential to target the brain via the olfactory and trigeminal nerves. Delivery of therapeutically meaningful levels of drugs allows for the development of more effective drugs and expands the range of treatment options available to patients.</p> <p><b>Company Description:</b> Impel NeuroPharma is developing a pipeline of drug-device combination products built upon its Precision Olfactory Delivery (POD) nasal delivery platform. These new nasal drug delivery devices are intended to achieve superior biodistribution, bioavailability, and decreased dose-to-dose variability of both small molecules and biologic drugs in patients. Additionally, our POD are easy and safe to use by patients and by caretakers. We are driving our migraine, Alzheimers, and Parkinsons disease programs forward internally and with pharmaceutical company partnerships.</p>	

<p>Marietta, Georgia  <a href="http://www.inlighta.com/">http://www.inlighta.com/</a></p>	<p><b>Inlighta Biosciences LLC</b>          Biotechnology for Healthcare, Diagnostics</p>
<p><b>Technology Name:</b> MRI Contrast Agents</p> <p><b>Technology Description:</b> The developed platform technology leads to design MRI contrast agents that specifically target to various major biomarkers that advance current blood pool MR imaging to molecular imaging. These MRI probes exhibit unique capabilities including disease bio-marker dependent imaging contrast enhancement and desirable penetration of tumor tissue and endothelial boundary. Their capabilities in obtaining temporal and spatial distribution and quantifying biomarker levels and changes are major advances in disease</p>	



diagnosis/staging, and devising effective treatment strategy. The lead product is a targeted MRI contrast agent for CXCR4 enable detection of various primary cancers and liver metastasis from uveal melanoma and ovarian cancers.

**Company Description:** Inlighta Biosciences LLC founded on 2012 focuses on the transnational research of developing protein based MRI contrast agents. We are aiming on developing novel imaging reagents designed to fill in major gaps in medical diagnostics for early detection, monitoring disease progression and recurrence, image-guided intervention, and evaluating drug delivery and therapeutic treatment by non-invasive Precision Imaging. Our patented reagents and platform technology provide significantly improved sensitivity and accuracy for a broad range of human diseases including various types of cancer, metastasis, and fibrosis for preclinical and clinical applications.

<p>Torrance, California  <a href="http://www.innosense.us">http://www.innosense.us</a></p>	<p><b>InnoSense LLC</b>            Biotechnology for Healthcare, Diagnostics, Research Tools, Medical Devices</p>
<p><b>Technology Name:</b> Nanowire Sensor Array-based Assay for Early Diagnosis of Alzheimer's Disease</p> <p><b>Technology Description:</b> Adnos is a point-of-care (POC) nanomaterial based diagnostic tool for early and sensitive detection of Alzheimers disease (AD). Adnos represents a stand-alone POC diagnostic and monitoring tool. It can detect AD from 2 L CSF sample within 10 minutes with minimal sample processing using a simple hand-held reader for uncomplicated and easy read out of the test results. Adnos detects AD biomarkers at femtomolar range which is 10,000X better than the currently existing standard biochemical tests. Adnos provides a tool to tap into the window of opportunity when AD pathology is accumulating prior to the development of overt cognitive symptoms.</p> <p><b>Company Description:</b> InnoSense LLC is a California-based Limited Liability Company. We are uniquely driven engineering firm serving the defense, aerospace, energy, health care, and industrial markets. Our research and development efforts focus on our core competency areas sensors, coatings, functional materials, green technology, renewable energy and biomedical diagnostics to develop and commercialize technology. Our experienced technical staff have customized and integrated our technology to fit a particular need from hydrophobic coatings for shoes and fabrics to CO2 sensors for space and subsurface. We do not just develop technology we provide solutions.</p>	

<p>St. Louis, Missouri  <a href="http://www.intactgenomics.com">http://www.intactgenomics.com</a></p>	<p><b>Intact Genomics, Inc.</b>            Pharmaceuticals, Research Tools, Biotechnology for Healthcare, Industrial Biotechnology</p>
<p><b>Technology Name:</b> FAC Technology</p>	



**Technology Description:** The FAC (fungal artificial chromosome) technology enables to capture an entire set of full-length gene clusters of secondary metabolites from any fungal strains and species, and move into the engineered *Aspergillus nidulans* strain for heterologous expression and drug discovery. The FAC technology overcomes the current technical need of working with different fungal strains and species. It also targets with all genes within a gene cluster avoiding partial solution. The FAC technology enables in vitro precisely gene modification to activate silent SM gene clusters for heterologous expression, which is the other key factor responsible for the severe limitations to the sustainable production of therapeutics.

**Company Description:** Intact Genomics, Inc., founded in 2013, develops high-quality life science research products and technologies for DNA amplification, cloning, sequencing, genomics, synthetic biology, and function studies. For example, Intact Genomics competent cells have the highest efficiency in the industry and we also provide the full set of T4 enzymes-proteins, which cannot be found in any vendor in the world. Our exclusive unbiased Random Shear BAC library cloning service, are being used by genome researchers to accelerate gene cloning, genome mapping, sequencing and function studies, saving time and research dollars. Intact Genomics is building a novel fungal drug discovery pipeline with the fungal artificial chromosome technology\*. Intact Genomics is developing large DNA cloning related technologies can be licensing to others, and the fungal drug discovery pipeline will enable large-scale natural product and drug discovery first-time with substantial business opportunities.

Research Triangle Park, North Carolina  
<http://jerichosciences.com>

**Jericho Sciences, LLC**  
 Diagnostics, Pharmaceuticals, Research Tools

**Technology Name:** HIV Therapeutics and Diagnostics

**Technology Description:** The commercial goal is a candidate small molecule providing a clinically meaningful synergistic effect as an integral part of cART. Jericho's drug candidate will greatly reduce cART dosing and adherence burdens and possibly result in a dramatic paradigm shift in HIV therapeutic treatment toward reducing the source of persistent virus infection in the latent reservoir. We are also developing a clinically relevant, corresponding diagnostic assay for personalized clinical management of antiviral therapeutics intended to reduce the size of the HIV latent reservoir. This technology assesses patient-specific responses across comparative conditions using multiparametric measures from the full peripheral blood immunologic compartment.

**Company Description:** Jericho Sciences develops novel antiviral therapeutics and personalized diagnostics to specifically address the limitations of current combination antiretroviral therapy (cART) in the clinical management of HIV-1 infection, with the goal of reducing the persistent reservoir of latently-infected cells, toward a functional cure.





Atlanta, Georgia <a href="http://www.kdhrc.com">http://www.kdhrc.com</a>	<b>KDH Research &amp; Communication</b> Virtual Learning
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**Technology Name:** KDH Research & Communication

**Technology Description:** Allowing organizations to use an online web-based toolkit to learn how to formulate, implement, and evaluate promotores programs that provide health information and services to low-income Latinos. This bypasses the logistic and cost burdens of in-person trainings and allows a standardization of capacity-building for organizations across the country.

**Company Description:** KDH Research and Communications is an award-winning, public health and communications company located in Atlanta, Georgia. KDHRC takes highly scientific information and research and uses it to develop, easily digestible and actionable information for specific populations with unique or niche public health needs. KDHRC specializes in four specific focus areas which are: drug abuse prevention education, vulnerable populations, Latino health, and organizational studies. In addition to developing, evaluating, and disseminating our NIH-funded programs, we also serve as evaluation and scientific contractors for several established advocacy agencies and research institutes.

Clifton Park, New York <a href="http://www.kitware.com">http://www.kitware.com</a>	<b>Kitware, Inc.</b> Health IT
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**Technology Name:** Medical Computing Software

**Technology Description:** This strategically important initiative introduces our leading-edge computing tools into the neurophysiology community.

**Company Description:** Kitware develops open source, scientific computing tools.

Menlo Park, California	<b>Martineau &amp; Associates, Inc.</b> Research Tools
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**Technology Name:** Zebrafish Behavior Research Platform and Repository for Mental Health and Neuroscience

**Technology Description:** Zebratrack is a highly parallel, high throughput behavior observation platform to record and analyze aquatic model organisms, such as zebrafish, in groups, directly in their culture dish. Zebratrack combines an original darkfield illumination design, to reveal small transparent objects, with Remanent Imaging, a disruptive computer vision motion



quantification technology. Using longer exposure to record video, Remanent Imaging leverages the motion information contained in blurred images to achieve higher resolving power at smaller data footprint; it demonstrated a 10,000 performance improvement over state of the art methods, a 20-year leap according to Moore's law.

**Company Description:** Martineau & Associates designs digital video monitoring instruments of a new type to advance our knowledge and understanding of the living world. Non-dilutive grant funding will ready its flagship Zebratrack animal behavior analysis platform for commercialization in the neuroscience and mental health market, where it aims at enabling major strides in neural circuit understanding and drug discovery.

<p>New York, New York  <a href="https://www.medicasafe.com/">https://www.medicasafe.com/</a></p>	<p><b>MedicaSafe, Inc.</b>          Medical Devices</p>
<p><b>Technology Name:</b> Behavioral Health Technology/Opioid Addiction Therapy</p> <p><b>Technology Description:</b> MedicaSafe offers a secure and tamper-evident medication dispenser that, along with ancillary technologies, guides and tracks medication usage dose-by-dose. This FDA-cleared system is designed for abuse-prone medications, e.g. opioids, where compliance is clinically important. We are working towards launch of a FDA-approved drug-device combination product that pre-packages a miniaturized version of our dispensing system with buprenorphine-naloxone, the most popular drug for opioid addiction therapy. We have commenced clinical trials and hope to achieve support for FDA-approved labeling that suggests our product improves upon (a) compliance, (b) treatment adherence, (c) diversion monitoring, and (d) child safety. Other drug-device offerings will follow.</p> <p><b>Company Description:</b> MedicaSafe has developed a system for medication dose management with the potential to reduce risk and improve outcomes from abuse-prone medication therapies. Our initial commercialization focus is the launch of a drug-device combination for medication-assisted treatment of opioid addiction. We have partnered with hospital systems, clinics, and pharmacies to pilot our system and to understand how to best tackle the unmet needs in this domain. We've developed a product that simultaneously addresses needs of patients, clinicians, pharmacies, and payers. We intend to eventually extend our commercialization efforts into other treatments, e.g. opioid risk management for at-risk pain patients.</p>	

<p>Alachua, Florida  <a href="http://mdbiotec.com">http://mdbiotec.com</a></p>	<p><b>Medosome Biotech, LLC</b>          Pharmaceuticals, Diagnostics</p>
<p><b>Technology Name:</b> Orphan drug development: "Personalized dosing of dichloroacetate for the treatment of rare and common diseases"</p>	



**Technology Description:** Dichloroacetate (DCA) has therapeutic potential in treating several rare and common life-threatening diseases of children and adults. However, DCA is potentially neurotoxic, limiting its clinical use. The human glutathione transferase zeta 1 (GSTZ1) gene encodes a protein that dehalogenates DCA. Our company scientists discovered that haplotype variations in the human glutathione transferase zeta 1 (GSTZ1) gene influence the kinetics of DCA, distinguishing fast and slow drug metabolizers. This finding was exploited successfully in a Phase 1 trial of DCA to treat adults with recurrent brain tumors, and currently an FDA Phase III clinical trial for PDHC.

**Company Description:** Medosome Biotech, LLC (DUNS: 079455600) is a Florida-based small business. The primary focus of the company is to develop and commercialize drugs to treat orphan diseases. In addition, the company develops complementary genetic tests for personalized dosing of drugs for the treatment of orphan diseases.

Louisville, Kentucky  
<https://www.memstim.com/>

**MEMSTIM**  
 Medical Devices

**Technology Name:** Medical Device Engineering

**Technology Description:** MEMStims cochlear implant lead manufacturing system will decrease production costs, improve patient access and potentially spur further improvements to the devices. The cochlear implant industry currently produces its leads one-by-one, by hand, in a clean room environment. These manual production floors can be compared to warehouses, with hundreds of workers performing tedious labor. MEMStims microfabricated cochlear implant leads are a fraction of the cost of the manually-produced leads, and have greater potential for innovation. This technology can be applied to other fields of use.

**Company Description:** MEMStim is an early stage medical device startup dedicated to enhancing the full lives of individuals with Parkinsons tremors, chronic pain, or hearing loss. Through advanced manufacturing, MEMStim enables the production of low cost, high performance neurostimulator devices that are capable of drastically expanding access to millions of new patients worldwide. Equipped with over \$2M in non-dilutive grant funds, access to multiple issued patents and an efficient regulatory position, MEMStim will soon improve everyday lives with our portfolio of innovative sensorineural technologies.

Brooklyn, New York  
<http://www.mirimus.com>

**Mirimus Inc.**  
 Biotechnology for Healthcare, Research Tools

**Technology Name:** RNAi and CRISPR/Cas9 animal models

**Technology Description:** With the advent of RNAi and more recently CRISPR/Cas9 technologies, the speed and precision in which genetically engineered mouse models of



disease can be created is unprecedented. Mirimus has brought RNAi technologies to its peak, by increasing potency and reducing off-target effects of RNAi, such that it can be effectively exploited to preclinically mimic drug therapy in live mice. By combining CRISPR/Cas9 with RNAi-mediated gene silencing, we now have an advanced platform to perform target validation and toxicity assessment of novel candidate targets in vivo, moving our models into a new era of reliably predicting patient outcomes.

**Company Description:** Mirimus is engaged in the design, development and pioneering of new genome editing technologies to develop animal models that are crucial for the preclinical evaluation of new therapeutics. We are a high-tech business unlike any other with expertise in RNAi technologies critical for development of rodents that can pave the way we develop drugs, by pin-pointing potential toxicities and preventing harmful side-effects of therapeutics in patients. We are revolutionizing the creation of animal models with introduction of CRISPR/Cas technologies for development of models beyond mice, such as rats.

<p>Houston, Texas <a href="http://www.n3dbio.com">http://www.n3dbio.com</a></p>	<p><b>Nano3D</b> Biotechnology for Healthcare, Diagnostics</p>
<p><b>Technology Name:</b> 3D Bioprinting Using Magnetic Levitation</p> <p><b>Technology Description:</b> Short-term goal is to sell our assay kits and contract research services for magnetic 3D bioprinting and imaging. The target customers for these products are drug discovery and toxicology labs in the pharmaceutical, chemicals, and cosmetics industries who value throughput while maintaining accuracy in preclinical/premarket testing. Our products reach a worldwide customer base through a distribution network anchored by Greiner Bio-One, a leading manufacturer of life sciences supplies. In the medium- to long-term, our goal is to apply our strengths in assay development towards precision medicine.</p> <p><b>Company Description:</b> Nano3D Biosciences (n3D) has developed magnetic cell culture, where we magnetize cells using NanoShuttle™-PL, and then rapidly print them into microtissues using magnetic force. This is an easy method for 3D cell culture that works with any cell type, making it ideal for biomedical research and high-throughput compound screening. We offer a wide product line for our technology with kits that are easy to use and fit seamlessly into existing cell culture workflows. We also provide services, in cell culture optimization or contract research, where we leverage our expertise in 3D cell culture to deliver quality results.</p>	

<p>San Diego, California <a href="http://www.nanocollect.com">http://www.nanocollect.com</a></p>	<p><b>NanoCollect Biomedical, Inc.</b> Research Tools</p>
<p><b>Technology Name:</b> Microfluidic Flow Cytometry and Single Cell Dispensing</p>	



**Technology Description:** We use sterile, disposable, microfluidic fluid handling to detect and sort cells based on size, shape, fluorescent emissions and imaging. We can then dispense cells in bulk or as single cells in microtiter plates.

**Company Description:** NanoCollect Biomedical designs and builds cell sorting tools for biomedical researchers. At the core of our product is the WOLF Cell Sorter that uses microfluidic cartridges to detect and sort cells in a sterile, disposable, microfluidic manner. Modules, such as single cell dispensing and imaging will be added to expand our offerings.

Minneapolis, Minnesota

**Neuro Devices, Inc.**  
Medical Devices

**Technology Name:** The Bumps: A Device for Rapid, Non-invasive Quantification of Touch Sensation

**Technology Description:** The Bumps device provides clinicians and researchers with a simple method to quickly quantify the sensation of touch. Time to test subjects is typically under 10 minutes for both controls and older neuropathy patients. Requiring subjects to demonstrate that they felt the stimulus by locating the bump in one of 5 circles avoids the problems of forced choice methods. Although it's possible to identify the correct bump by chance, the odds against a correct guess are 4:1 for each square. Defining threshold as the smallest bump height of 3 consecutive correct locations increases odds against guessing correctly to approximately 100:1.

**Company Description:** Neuro Devices, Inc. was incorporated in 1988 with the goal of improving the neurological examination by developing quantitative, objective and sensitive measures of the health of the peripheral nervous system. Peripheral neuropathy causes numbness, pain, decreased sweating, impaired vascular function and eventual weakness. Treatment is possible if a diagnosis is made early when the possibility for reversal is greatest. Providing physicians with better tools will both enable early diagnosis and make it possible to track the incremental changes resulting from treatment.

Research Triangle Park, North Carolina  
<http://www.nirvanasciences.com>

**NIRvana Sciences, Inc.**  
Research Tools

**Technology Name:** Red and Near Infrared Fluorescent dyes

**Technology Description:** Synthetic fluorescent dye chemistry platform for red and near infrared dyes that will enable new, enhanced spectral properties that will be useful in life science applications such as flow cytometry, microscopy, DNA-based probes, and small animal imaging.





**Company Description:** NIRvana Sciences is a spin-out from NC State University that is commercializing novel red and near infrared fluorescent dyes with very narrow emissions into life sciences markets that continue to demand greater multiplexing performance. Our entry market is flow cytometry with secondary market opportunities that could involve microscopy, photoacoustic imaging, or DNA-based probes. NIRvana is a dye chemistry company seeking to partner with companies who can use our new dyes to expand their reagent portfolios as well as possibly increase the multiplexing performance of related hardware systems.

<p>Philadelphia, Pennsylvania  <a href="http://www.oncoceutics.com">http://www.oncoceutics.com</a></p>	<p><b>Oncoceutics, Inc.</b>  Pharmaceuticals</p>
<p><b>Technology Name:</b> ONC201 - Small Molecule Oncology Therapeutic</p> <p><b>Technology Description:</b> Imipridones are a new class of drugs with attractive chemical and biological properties that selectively target GPCRs. They contain a unique tri-heterocyclic core structure that has enabled development of a portfolio of compounds that can address various GPCRs. ONC201 is a selective antagonist of DRD2, a receptor that is overexpressed in many cancers and controls pro-survival and stress signaling pathways that are critical in cancer. Target engagement by ONC201 activates the integrated stress response (ISR) and inactivates pro-survival Ras signaling to trigger a strong anti-proliferative and pro-apoptotic response in tumor cells without harming normal cells.</p> <p><b>Company Description:</b> Oncoceutics, Inc. is a Phase II clinical drug discovery and development company with a novel class of selective G protein-coupled receptor (GPCR)-targeting compounds for oncology called imipridones. The first lead compound from this program is ONC201, a selective antagonist of dopamine receptor D2 (DRD2). ONC201 is an orally active and blood brain barrier-penetrating small molecule that demonstrated p53-independent anticancer activity in many challenging preclinical models of advanced cancer. The compound is currently being studied in eight ongoing Phase I and Phase II trials.</p>	

<p>Cincinnati, Ohio  <a href="http://osmicenterprises.com">http://osmicenterprises.com</a></p>	<p><b>Osmic Enterprises, Inc.</b>  Medical Devices</p>
<p><b>Technology Name:</b> Screening Test for Alzheimer's Disease</p> <p><b>Technology Description:</b> Tests of olfaction have been available for the last three decades, but have basically remained unchanged since their inception. The OLFACT Test Battery (OTB) is superior to all current tests because of three major innovations. Firstly, the OTB produces olfactory stimuli via an inexpensive miniature olfactometer that can generate olfactory cues in a very reliable, precise manner. Secondly, administration of the tests and recording of responses is accomplished by a computer. Finally, a tablet APP has been developed that</p>	



allows the test to be given anywhere in the world and the data uploaded to a centralized database In the Cloud.

**Company Description:** Osmic Enterprises, Inc., developed and is now validating the OLFACT Test Battery, a series of computerized tests to assess olfactory function for use as a screening test for Alzheimers disease. Olfactory stimuli are generated via a miniature olfactometer. The tests are now available as a smartphone/tablet -based APP. Data from the APP is streamed to a Cloud-based centralized database. Data from multiple olfactometers, located anywhere in the world, can be collected in real time in the database for immediate inspection and analysis. The test battery is now being validated in collaboration with two national Alzheimers Disease Research Centers.

Lake Oswego, Oregon  
<http://www.pdxpharm.com>

**PDX Pharmaceuticals, LLC**  
 Pharmaceuticals

**Technology Name:** Novel siRNA-nanoparticle Platform for Treating Drug-Resistant HER2 Positive Breast Cancer

**Technology Description:** Our technology is a unique non-lipid based nanoparticle platform for targeted delivery of drug and nucleic acids. It also has inherent antioxidant property shown to inhibit cancer metastatic potential and fibrogenesis. The platform is attached with antibodies for targeting cancer cells. We have applied the platform successfully for nucleic acid delivery systemically and dermally in breast cancer and fibrosis mouse models. Results have published in peer-reviewed high impact journals. The material has great safety profile and manufacturability. Our pipeline products include targeting various genes with differing nucleic acids for treating breast, lung, and colorectal cancers.

**Company Description:** PDX Pharmaceuticals, LLC, is an early stage therapeutics company focusing on developing functionalized nanomaterials into therapeutics to treat cancer, fibrosis, and metal poisoning. We aspire to substantially improve healthcare using our nanotechnology platforms. PDX Pharmaceuticals was established in 2010, supported by the Biomedical Engineering Department of OHSU and The Oregon Nanoscience and Microtechnologies Institute (ONAMI). Since established, we have won a total of four SBIR awards from the NIH, including two fast-track SBIR awards from the NCI for targeted delivery of nucleic acids and chemotherapeutics on our nanoparticle platform to treat resistant HER2 positive breast cancer.

Carmel, Indiana  
<http://www.FASTBioMedical.com>

**Pharmacophotonics, FAST  
 BioMedical - aka  
 Pharmacophotonics**  
 Diagnostics, Medical Devices, Pharmaceuticals



**Technology Name:** FAST BioMedical Blood Volume and Kidney Function Measurements

**Technology Description:** The company developed proprietary fluorescent markers of very exact molecular weights. By giving patients a small dose of markers via injection, the technology determines the patient's physiology based on the body's processing of the markers. The markers are inert and do not create a reaction in the body. Small timed blood samples are processed in a spectrofluorometer that runs software to determine clinically relevant metrics. The initial two metrics are Blood Volume and Kidney Function. The initial commercialization focus is Blood Volume, which helps manage a patient's fluid status, a key in critical care and Congestive Heart Failure.

**Company Description:** FAST BioMedical is a clinical stage company developing technologies to measure Blood Volume and Kidney Function in a clinically actionable time frame. These products address significant unmet medical needs, as validated by the FDA and primary market research. FAST is advancing the technology through the regulatory approval process, and is currently completing its Phase IIB human trial. These globally patented technologies hold great promise in managing patients with Congestive Heart Failure, Sepsis, those undergoing major surgery, those in critical care, and those with kidney failure.

<p>Brooklyn, New York  <a href="http://www.phoenixnestbiotech.com/">http://www.phoenixnestbiotech.com/</a></p>	<p><b>Phoenix Nest, Inc.</b>          Pharmaceuticals, Biotechnology for Healthcare</p>
<p><b>Technology Name:</b> Enzyme Replacement Therapy (ERT) for Mucopolysaccharidosis IIID (Sanfillipo syndrome)</p> <p><b>Technology Description:</b></p> <p>We are developing human alpha-N-acetylglucosamine-6-sulfatase (rhGNS) as an Enzyme replacement for MPS IIID. This represents one of several treatments under development for different forms of Sanfillipo syndrome. We also have treatments in development for MPS IIIB and MPS IIIC</p> <p><b>Company Description:</b> Our company's goal is to collaborate with the best scientists we can to bring treatments to the clinic for Sanfillipo Syndrome (Mucopolysacchridosis, MPS). We have a license to an ERT for MPS IIID, a gene therapy for MPS IIIC, a chaperone for MPS IIIB and MPS IIIC and a stem cell/ gene therapy for MPS IIIB.</p>	



<p>Laramie, Wyoming  <a href="http://pollutioncontroltech.com">http://pollutioncontroltech.com</a></p>	<p><b>Pollution Control Technologies</b>  Fossil Fuels (incl. petroleum), Environmental Technologies</p>
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**Technology Name:** On Site Mercury Remediation via Activated Fly Ash

**Technology Description:** X-FA is a mercury capturing material comprised mainly of the power plants fly ash. The working principle of X-FA is a coating technology that deposits a thin layer of an activator on fly ash particles. Once in contact, X-FA reacts with mercury present in the flue gas and captures it. To produce X-FA on-site, fly ash is extracted from storage units and transported into the activating station where fly ash and activator are introduced and the coating layer is formed. Due to the closed-loop nature of this process and amounts of material used, all waste remains virtually intact.

**Company Description:** Pollution Control Technologies is dedicated to the development of mercury control, cost-effective solutions for the fossil fuel industry. Our company is driven by a high demand for novel and economic products due to the ever growing difficulties associated to mercury regulations compliance. Our latest development, X-FA is a mercury sorbent comprised mainly of the power plants fly ash. The working principle of X-FA is a coating technology that deposits a layer of an activator on fly ash particles and reacts with mercury vapor in the flue gas and captures it irreversibly to be safely disposed of.

<p>Dexter, Michigan  <a href="http://www.possibilitiesforchange.com/">http://www.possibilitiesforchange.com/</a></p>	<p><b>Possibilities for Change</b>  Healthcare IT</p>
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**Technology Name:** ACT-Tobacco

**Technology Description:** On a tablet or other technology-driven device, adolescents answer a set of questions that assess their risk for behaviors specific to sexual health or tobacco use with ACT, and specific to the behaviors contributing to morbidity and mortality with RAAPS. Both RAAPS and ACT generate a report with identified risk areas and health education to guide health professionals their discussion toward positive behavior changes. School-based health centers, primary care clinics, sexual health clinics, schools and other youth-serving organizations license RAAPS and ACT in order to improve adolescent health within their practice or program.

**Company Description:** Possibilities for Change (P4C) equips health professionals with adolescent risk screening and counseling technologies to improve outcomes, automate workflows and standardize care. Its leading tools include the Rapid Assessment for Adolescent Preventive Services (RAAPS), standardized validated risk assessments developed to support professionals in addressing the risk behaviors contributing to mortality and morbidity in youth, and the Adolescent Counseling Technologies (ACT), an online behavior health intervention delivering standardized, evidence-based risk assessment and health



education in the areas of sexual health and tobacco. P4C also enhances adolescent interactions by offering Motivational Interviewing Training to health professionals nationwide.

<p>Huntington, West Virginia  <a href="http://www.progenesistechnologies.com">http://www.progenesistechnologies.com</a></p>	<p><b>Progenesis Technologies, LLC</b>          Industrial Biotechnology, Biotechnology for Healthcare, Medical Devices</p>
<p><b>Technology Name:</b> Biopolymer Bacterial Alginate</p> <p><b>Technology Description:</b> The biopolymer alginate, obtained from seaweed, has uses ranging from enhancing texture in food and personal care products to an excipient and hydrogel in pharmaceutical and biomedical applications. However yield of seaweed alginate is decreasing due to global warming and polymer composition is fixed. <i>Pseudomonas</i> sp. also produce alginate. Progenesis has developed genetic changes in the bacterium enabling high and stable alginate production while eliminating potential deleterious products and pathogenicity. Additional genetic engineering will customize the composition of the biopolymer overcoming the limitations of seaweed. Users will select the type of alginate best suited for their pharmaceutical and clinical application.</p> <p><b>Company Description:</b> Progenesis is bioengineering <i>Pseudomonas</i> bacteria to produce the biopolymer alginate. The current source of alginate is brown seaweed. However due to global warming its yields are decreasing. Further, its alginate composition is fixed and cannot be easily changed to improve performance of the polymer. Progenesis is engineering bacterial alginate with unique ratios of monomer subunits not found in seaweed. While alginate has many applications ranging from industrial lubricant, food and personal care additive, Progenesis' phase II award is focused on improving alginate hydrogels to help speed wound healing, especially in patients such as diabetics with chronic slow healing wounds.</p>	

<p>St. Louis, Missouri  <a href="https://www.pulsetherapeutics.com/">https://www.pulsetherapeutics.com/</a></p>	<p><b>Pulse Therapeutics</b>          Biotechnology for Healthcare, Medical Devices</p>
<p><b>Technology Name:</b> Pulse Therapeutics</p> <p><b>Technology Description:</b> Poor diffusion within an occluded vessel is known to limit thrombolysis effectiveness. When a clot obstructs a vessel, blood flow is unable to convey thrombolytic agents to the clot. The inability to lyse clot is further handicapped by the thrombolytic agent's short half-life, which explains their poor efficacy. PTIs technology represents a breakthrough in the ability to convey thrombolytic agents to occlusive thrombus in the cerebral circulation. By using patented systems which precisely manipulate magnetic fields so as to tumble the company's proprietary iron-oxide particles in a preferential direction, clot-lysis efficacy is increased by orders of magnitude.</p>	





**Company Description:** Pulse Therapeutics, Inc. (PTI) is a company developing disruptive technologies to greatly improve stroke therapy. By leveraging its breakthrough technology using magnetic particles to convey thrombolytic agents over 100X faster, reperfusion can be made to occur significantly faster and the risk of thrombolytic-associated bleeding be substantially reduced. The commercial advantage of PTI's technology hinges on the ability of US stroke centers to recognize increased profit. There are several mechanisms by which this can be accomplished with PTI's tPA-coated magnetic particle system. These include a lower cost of therapy, a lower cost of inpatient care, and an increase in procedure reimbursement.

San Diego, California <a href="http://qoolabs.com">http://qoolabs.com</a>	<b>Qoolabs, Inc</b> Biotechnology for Healthcare, Diagnostics, Research Tools
<p><b>Technology Name:</b> POCT Rapid Tests</p> <p><b>Technology Description:</b> Qoolabs specializes in making single domain antibodies from camelids. The single domain antibodies could bind on different epitope than conventional antibodies, and they are more stable in a wide range of conditions, including different pH and temperature, and various denaturant. Therefore, single domain antibodies could be a better choice in immunoassays that needs to be performed under harsh conditions. Qoolabs is developing novel immunoassays with single domain antibodies.</p> <p><b>Company Description:</b> Qoolabs specializes in developing novel rapid tests for protein detection. Our product pipeline for protein research includes 37ExpressVue epitope tag rapid tests and Know Now! Antibody Isotyping rapid tests. We are also developing novel immunoassays for unmet diagnostics needs, including hepatitis C core antigen, hepatitis B core antigen, and sickle cell disease. The projects for diagnostics tools were supported by SBIR grants and contracts from the NIH and the CDC. The hepatitis core antigen tests predict the disease status more accurately than that of antibody tests. Immunoassays can also be more accessible and less expensive than PCR based tests.</p>	

Pittsburgh, Pennsylvania <a href="http://www.qrono.com">http://www.qrono.com</a>	<b>Qrono, Inc</b> Pharmaceuticals
<p><b>Technology Name:</b> Cancer Immunotherapy / Advance drug delivery</p> <p><b>Technology Description:</b> QR206 is a paradigm shifting immunotherapy and the lead product in a new category of cancer therapies based on Qronos QARRUS platform. Instead of targeting specific molecular signals that are transiently over-expressed by tumor, immune or vascular cells, QARRUS localizes therapy using a direct injection into the tumor and micron-sized drug particles that hijack the natural reflex of tumor-associated macrophages to eat bacteria. This</p>	



unique drug delivery strategy simultaneously halts tumor growth and disrupts the protection of its macrophages, which are key contributors to metastasis and recurrence.

**Company Description:** Qrono Inc is a specialty pharma company with a research, funded cancer therapy platform focused on helping the 80% of patients without an effective treatment option. QARRUS, our platform, safely targets chemotherapy to cancer stem cells and tumor associated macrophages, disrupting tumor growth and metastasis. Qrono has demonstrated proof-of-concept for its lead product, a QARRUS-epothilone therapy (QR206), in two head and neck cancer (HNC) models. QR206 is progressing through IND studies, culminating in a feline oral cancer veterinary trial and will be ready for clinical translation to patients with treatment-resistant, virus-negative HNC in 18 months.

San Diego, California  
<http://www.quasarusa.com>

**QUASAR, INC.**  
 Medical Devices

**Technology Name:** NEMO

**Technology Description:** This program is developing a Neonatal EEG MOnitor (NEMO) system intended as a reliable and easy-to-use EEG system that will increase availability of neonatal EEG monitoring at all hours of the day and to hospitals that typically lack this capability. NEMO leverages QUASARs innovative dry electrode technology that has been demonstrated to record high fidelity EEG signals without the need for skin abrasion or conductive gels. The ease of use of NEMO will allow it to be implemented at hospitals that currently lack neonatal EEG monitoring, leading to more neonates at risk for seizures being quickly screened and treated.

**Company Description:** QUASAR is a world leader in noninvasive biosensing systems. Our work builds on our revolutionary noninvasive sensors integrated with precision hardware and sophisticated, robust algorithms to produce systems that output information about cognitive and physiological states.

Louisville, Colorado  
<http://www.QuSpin.com>

**QuSpin Inc.**  
 Medical Devices, Diagnostics, Research Tools

**Technology Name:** Magnetic sensors, Magnetoencephalography, Magnetocardiography, Fetal Magnetocardiography, Relaxometry

**Technology Description:** The QuSpin OPM magnetic sensor technology provides ultra-high sensitivity similar to current leading cryogenic sensors but without the limitation due to cost and complexity. Our magnetometers provide critical improvements in size, multi-use flexibility, cost reduction, and performance over the current cryogenic-based sensors. We are providing a state-of-the-art primary technology that enables our customers to significantly



improve their present devices or develop new technologies that were previously not feasible. They can be used as a standalone magnetometer or integrated as an OEM technology for devices such as Magnetoencephalography systems and Magnetocardiography systems for adult, neonatal, and fetal heart monitoring and diagnostics.

**Company Description:** QuSpin specializes on the development and manufacturing of ultra-high-performance commercial magnetic sensors for biomedical and geophysical applications. Our sensors are among the most sensitive magnetometers in the world, capable of detecting even the small signals from neural activity in the brain. The technology utilizes the spin dynamics of atoms to measure magnetic fields and in five years, we have engineered and transformed this highly complex laboratory technology into a compact and turn-key commercial device. Our sensors can be used as a standalone magnetometer by end-use consumer or integrated as an OEM technology for medical devices such as magnetoencephalography or magnetocardiography.

Burgess, Virginia  
<http://www.reessi.com>

## Research, Evaluation and Social Solutions, Inc.

Healthcare IT

**Technology Name:** Virtual World and Serious Games for Adolescents

**Technology Description:** The technology contains several primary innovations: (1) The games use advanced digital media strategies with games, nested story lines, music, avatars, social interactions and off-line assignments to impact participants choices, behaviors and real-life outcomes. (2) Many afterschool programs have limited personnel. Our innovative blended learning curriculum can be implemented with fidelity while requiring minimal program staff time and resources. (3) This product provides a relatively low-cost solution combined with the potential for large-scale end-user access and reach. (4) The REESSI staff will have the capability to regularly update the information and components, accommodating rapid changes in technology.

**Company Description:** REESSI is a premier private research firm based in Virginia. Our corporate mission is to investigate, design, build, evaluate and diffuse pragmatic digital learning and communication solutions that lead to cumulative and sustained health in under-resourced populations. We meet this mission through three focused corporate goals - 1) to use new digital media to support adolescents from under-resourced families and communities in a positive transition to adulthood; 2) to use mobile technology to improve patient-centered care through patient education; and 3) to use digital education and virtual social networking mechanisms to build the competence and capacity of public health workers.

Carlsbad, California  
<http://www.seacoastscience.com>

## Seacoast Science Inc

Biotechnology for Healthcare, Diagnostics



**Technology Name:** Cyanalyzer A Medical Laboratory Device for the Rapid Diagnosis of Cyanide Exposure

**Technology Description:** The Cyanalyzer is a diagnostic medical device for cyanide exposure through smoke inhalation. The Cyanalyzer directly analyzes cyanide from whole blood in a cartridge that combines simple sample preparation, reagent storage and delivery, and base capture and derivatization of HCN gas.

**Company Description:** Founded in 2003, Seacoast Science, Inc. has a diverse team made up of 11 full-time employees with specialties including chemistry, mechanical engineering, electrical engineer, business operations and medium scale manufacturing. Seacoast specializes in research and development of chemical sensing technology for a variety of niche markets including analytical instruments, medical diagnostic equipment, and chemical agent detectors. Seacoast supplies innovative instruments to identify chemical hazards that may pose risks to human health and homeland security. Seacoast succeeds by focusing on; providing outstanding R&D services, developing low-cost, state of the art products, and filling niche market space that the larger players overlook.

Santa Cruz, California  
<https://www.somagenics.com>

**SomaGenics, Inc.**  
 Biotechnology for Healthcare

**Technology Name:** sshRNA/ Wound Healing Therapeutics

**Technology Description:** SomaGenics proprietary, patented sshRNA (RNAi effectors) technology directly targets the physiological defect obstructing healing of chronic wounds. sshRNAs are short chemically modified RNA sequences that are chemically synthesized as single strands. These therapeutic agents possess superior pharmacokinetic properties without undesirable immune stimulation. Utilizing a novel degradable wound dressing, we demonstrated efficacy of our lead agent in a diabetic mouse model. Novel combination therapy targets separate parts of the wound healing pathway, further differentiating our treatment modality from competitors. Such combined biological therapy delivered through a functional wound dressing is a significant advance in diabetic chronic wound care.

**Company Description:** SomaGenics is a privately held company in Santa Cruz, California. We specialize in developing novel RNA-centered approaches to address unmet life science research and medical needs. Our core competencies include RNA molecules as therapeutic agents, drug targets and biomarkers as well as RNA analysis tools. SomaGenics has a proven track record of original research, applied development and commercialization. Founded in 1997 as a spin out from SRI International, SomaGenics, Inc. has raised over \$25 million in federal grant funding from agencies such as NIH, NSF, NASA and DARPA and maintains an impressive intellectual property portfolio covering our nucleic acid-based technologies.



<p>Santa Fe, New Mexico  <a href="http://www.spincentica.com">http://www.spincentica.com</a></p>	<p><b>SpinCentica</b>  Pharmaceuticals</p>
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**Technology Name:** New Antibiotics for Multi-Drug Resistant Tuberculosis

**Technology Description:** Our technology is a stable isotope labeled existing TB drug that overcomes drug resistance through an unprecedented mechanism. We plan to achieve regulatory approvals for this compound to treat drug resistant TB.

**Company Description:** SpinCentica develops stable isotope labeled versions of existing tuberculosis drugs to overcome antibiotic resistance and potentiate therapy.

<p>College Station, Texas  <a href="http://www.Stand2Learn.com">http://www.Stand2Learn.com</a></p>	<p><b>Stand2Learn (aka PositiveMotion)</b>  Classroom-Based Technologies</p>
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**Technology Name:** Stand-Biased desks

**Technology Description:** Stand2Learns technology portfolio features single and double standing height-adjustable desks for students Kindergarten through the 12th grade. The original standing desk features adjustable leg heights and patented footrest that adjusts to different depths with dual heights. It also has an angled desk surface to promote visual motor skills, while reducing eye strain throughout the day. The Yze standing desk model provides an open leg design that aligns with students posture to eliminate knee knocking and provide comfort. While this model has a fixed leg design, it also comes with the patented dual depth, dual height footrest designed for standing comfort.

**Company Description:** Stand2Learn is the leader in research-based designed student desks. Our research proves standing height desks not only improve student health by increasing calorie burn rates 20% and decreasing BMI percentile 5% but also improve engagement times 15% and standardized test scores 5%. Stand2Learn desks allow students of all ages to choose if they want to stand or sit throughout the school day. This benefits the students attention, learning and overall health while improving classroom dynamics. Teachers can continue to focus on the subject at hand, teaching without constant interruption and distraction. A health focused desk helping students focus!

<p>Stony Brook, New York  <a href="http://www.traversebiosciences.com">http://www.traversebiosciences.com</a></p>	<p><b>Traverse Biosciences Inc.</b>  Biotechnology for Healthcare, Pharmaceuticals</p>
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**Technology Name:** TRB-N0224 for the Treatment of Periodontal Disease





**Technology Description:** Our proprietary library of drug candidates were designed to attenuate, but not annihilate, pathologically-excessive matrix metalloproteinases (MMPs) in an effort to return these proteolytic and collagen-destructive enzymes to normal physiological levels. In addition, our patented chemically-modified curcumins have also been shown to resolve inflammation, consistent with a multi-target, host-modulatory approach that overcomes the challenges of redundancy, compensation and necessity exhibited by the immune system. Our unique molecules exhibit highly pleiotropic anti-inflammatory effects, in part through inhibition of NF-kB, resulting in the reduction of pro-inflammatory cytokines (e.g. IL1-b, TNF-a, IL-6), while increasing pro-resolution cytokines and other factors (e.g. IL-10, lipoxin A4).

**Company Description:** Traverse Biosciences is commercializing a novel class of drug candidates to treat inflammatory diseases and age-related conditions. Our core technology was co-invented by Dr. Lorne Golub and Dr. Francis Johnson, the former of whom developed Periostat and Oracea, which has been marketed by Galderma since it acquired Collagenex Pharmaceuticals for \$420M in 2008. TRB-N0224 is being developed as the first FDA-approved, once-daily, edible prescription medication for the treatment of periodontal disease in dogs and cats. Traverse is concurrently advancing TRB-N0224 as a human therapeutic, with the intent of achieving development milestones sufficient to attract a pharmaceutical partner.

Lexington, Kentucky  
<http://www.nanoRANCH.com>

**UHV Technologies, Inc.**  
 Research Tools

**Technology Name:** Low Cost Online Real Time Metal Analysis during Pharmaceutical Manufacturing

**Technology Description:** During this SBIR contract, an inexpensive and easy to use online real-time metal analysis (ORMA) instrument has been developed that is capable of measuring low ppm levels (at least <5 ppm) of a range of metallic contaminants (Pd, Rh, Cu, Zn, Fe and Ir) during manufacturing of pharmaceuticals in powder, liquid, tablet & gel forms. This modular and wireless instrument can be co-located with the reaction and purification equipment where metal removal is performed, and preferably, amenable to continuous monitoring of metal impurities associated with continuous pharmaceutical manufacturing operations.

**Company Description:** UHV (aka nanoRANCH) is a 23 year old high tech company (~20,000 sq.ft in TX and KY) specializing in nano-materials, electronic devices and equipment/instrumentation manufacturing. The business model involves the steps of (i) Govt. funded R&D, (ii) in-house prototyping, demonstration and small scale manufacturing and (iii) commercialization through spin-offs and strategic partnerships. Past successes have included an IPO, \$22M in VC and over \$15M in combined sales/R&D revenue. Currently, our core technology involves innovative x-ray fluorescence (XRF) elemental analyzer for multiple products, including scrap metal sorters, mercury emissions monitors for coal power plants, and pharmaceutical metal analyzers (this project).



<p>San Diego, California  <a href="http://www.valasciences.com">http://www.valasciences.com</a></p>	<p><b>Vala Sciences, Inc.</b>          Biotechnology for Healthcare, Research Tools, Pharmaceuticals</p>
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**Technology Name:** Vala Sciences, Inc.

**Technology Description:** Kinetic Image Cytometry (KIC) is an automated digital microscopy platform, which acquires and automatically analyzes digital movies from cardiac myocytes (and other tissues) and measures force of contraction (in R&D), as well as action potentials and Ca<sup>2+</sup> transients for early drug discovery. Vala has successfully created fully automated analysis software for analyzing complex assays, resulting in automated kinetic high content screening in a high throughput manner (e.g., hundreds of compounds per day per instrument). Valas KIC platform automatically quantifies dozens of kinetic parameters that describe the duration, amplitude, upstroke, downstroke and other transient shape parameters for Ca<sup>2+</sup> and action potentials.

**Company Description:** Vala Sciences is a biotechnology company focused on Kinetic Image Cytometry (KIC). Vala sells the KIC platform technology and has formed drug discovery collaborations with pharma partners, and is developing novel targets and drugs for cardiovascular and neurological diseases. A recent publication showed KIC is the most predictive in vitro assay for fatal arrhythmias in early drug discovery, with no statistical difference from animal studies. Valas technology can screen for disease markers as well as quantify electrophysiology of cells in high throughput fashion, providing fundamentally better insight into the function of diseases like Alzheimers, Heart Disease and Muscular Dystrophy

<p>Richmond, Virginia  <a href="http://venebio.com">http://venebio.com</a></p>	<p><b>Venebio Group, LLC</b>          Healthcare IT</p>
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**Technology Name:** Venebio Opioid Advisor

**Technology Description:** Venebio Opioid Advisor (VOA) is a predictive clinical decision support tool that uses an opioid patient's medical history to construct a risk profile and predict, with 90% accuracy, their likelihood of experiencing serious life-threatening prescription opioid-related overdose. VOA can be embedded at the point of care in a prescribers EMR system, or can be utilized in a population health mode for larger populations, such as for health payers or Medicaid programs. The tool automatically generates practical, personalized, evidence-based guidance for physicians regarding risk-reduction interventions.

**Company Description:** Venebio Group is a life sciences consultancy providing comprehensive, customized services to corporate, academic, government, legal and other health-focused entities. Through its network of top scientists covering an array of specialties, Venebio offers customized project teams to ensure optimal solutions in addressing complex life sciences



problems. Venebio also develops evidence-based, personalized, predictive clinical decision support algorithms, two of which have been funded under three SBIR grants.

<p>San Diego, California  <a href="http://www.veriskin.com">http://www.veriskin.com</a></p>	<p><b>Veriskin, Inc</b>  Medical Devices</p>
<p><b>Technology Name:</b> Non-Invasive Medical Device for Skin Cancer Screening</p> <p><b>Technology Description:</b> Veriskin has invented and tested a novel method and hand-held device for a fast (&lt; 2 min) and non-invasive detection of skin cancer based on measurement of the hemodynamic changes in the cutaneous tumors. The central hypothesis of the pilot research was that the hemodynamic response to external mechanical pressure is different in cutaneous tumors as compared to benign nevi thus presenting a diagnostic opportunity. The method relies on detecting the spatially and temporally resolved light absorption in the cutaneous tumor tissue and proprietary data analysis algorithms enabling 100%/96.4% sensitivity/specificity as demonstrated in pilot clinical studies.</p> <p><b>Company Description:</b> Skin cancer is the most common cancer in the US with &gt;5M cases annually. Unfortunately, initial assessments by frontline caregivers are wrong 50%-90% of the time, resulting in \$3.2B of avoidable costs due to unnecessary biopsies/referrals. Veriskin has invented and developed a novel, non-invasive, handheld, low-cost, patent pending device with a disposable that rapidly determines if a suspect lesion is potentially cancerous. Pilot clinical studies have demonstrated an unparalleled 100% sensitivity and 96.7% specificity. Use of the device by frontline caregivers will reduce the number of false negatives and lower the number of unnecessary referrals/biopsies by tenfold or more.</p>	

<p>Del Mar, California</p>	<p><b>Virogenics, Inc.</b>  Pharmaceuticals</p>
<p><b>Technology Name:</b> Alzheimer's Disease</p> <p><b>Technology Description:</b> The product is a small molecule that prevents and reverses a number of the symptoms associated with Alzheimer's Disease in mouse models. The initial patient population to be targeted will be those suffering from mild to moderate AD. This population has the greatest potential for beneficial disease modification. The product will be an orally-delivered therapeutic to reduce or halt cognitive decline. In comparison, current AD medications are directed at generally stimulating normal brain activity to partially counter the effects of the disease. There are no drugs on the market for AD that prevent disease progression or are disease-modifying.</p> <p><b>Company Description:</b> Virogenics was incorporated in California in 2003. Current programs include gene replacement therapy, immune modulation for infectious disease control, and</p>	



neuroimmunology. Product development in each of these areas is in the discovery or pre-clinical stage. The company was founded by William Raschke, Ph.D., President and Chief Scientific Officer of Virogenics. The programs at Virogenics are extended and enhanced through multiple collaborations. The gene therapy program utilizes collaborators at the University of Iowa. The immune regulation program for infectious disease control includes investigators from UC San Diego, USAMRIID and UC San Francisco. The neuroimmunology program has colleagues at the Salk Institute.

Richmond, Virginia	<b>WynnVision, LLC</b> Medical Devices
<p><b>Technology Name:</b> Antimicrobial Urinary Catheters</p> <p><b>Technology Description:</b> WynnVision LLC is developing a new approach whereby catheters are overcoated with a thin film that kills bacteria but is compatible with human cells. The stability of these nanofilms allows for long-term antimicrobial effectiveness. Deposition of biocidal and biocompatible moieties is being optimized for large scale manufacturing. Initially, the catheter target is silicone, but the approach is general and may be applicable to other catheter materials.</p> <p><b>Company Description:</b> WynnVision, LLC develops anti-microbial but bio-compatible coatings to prevent catheter related infections. Customary methods include the release of silver (cytotoxic) and administering antibiotics (promote bacterial resistance). WynnVision's new approach produces catheters that kill bacteria but are compatible with human cells. Our interdisciplinary team has achieved bio-materials engineering breakthroughs in economical chemical deposition and processing. Catheter acquired urinary tract infections are the biggest cause of hospital acquired infections (60%). WynnVision products will address a \$3B catheter market and have a major impact not only by improving patient outcomes but by reducing the rapidly rising cost of medical care.</p>	

Durham, North Carolina <a href="http://www.xonamicrofluidics.com">http://www.xonamicrofluidics.com</a>	<b>Xona Microfluidics, LLC</b> Research Tools
<p><b>Technology Name:</b> Neuroscience</p> <p><b>Technology Description:</b> Xona's technology facilitates the study of neurons in culture. Through phase II funding we have developed new devices that are preassembled and easy-to-use. During this CAP program we will focus on commercialization efforts for these new production. Xona currently sells a silicone-based device that the end-user then assembles to a bottom glass surface. Over 500 labs world-wide use these devices, thus there is considerable</p>	



market demand and making the device more user-friendly will likely increase the number of units sold.

**Company Description:** Neuron-cell culture is critical for neuroscience research, testing and drug development. Xona Microfluidics, LLC ("Xona") makes and distributes patented, disposable neuron-cell culture devices which facilitate testing and research with neurons. While traditionally available culture platforms result in random and chaotic outgrowth of processes, Xona's devices allow separate examination of soma, axons and dendrites. Over 500 labs worldwide use these devices. Xona's overall mission is to provide tools that enhance experimental capabilities for neuron-cell culture. With patents in the U.S. and Europe, Xona continues to grow and make advancements in manufacturing and design that serve customers' demands for reliability and ease-of-use.

Ann Arbor, Michigan  
[Http://www.xorantech.com](http://www.xorantech.com)

**Xoran Technologies**  
 Medical Devices

**Technology Name:** Point of Care Cone Beam CT

**Technology Description:** The product in development incorporates advanced imaging hardware and software into a highly compact and portable CT scanner platform with a level of image quality suitable for imaging of the soft tissues of the brain and associated neurological conditions. This will allow point-of-care head and neck imaging to be performed intraoperatively for neurosurgical procedures as well as enable efficient and safe monitoring patients in the intensive care unit. This builds on the companys capabilities which to date have been limited to bone-window imaging and opens new markets in medical, veterinary as well as potential military and industrial applications.

**Company Description:** Xoran Technologies is an award-winning medical device innovator and adolescent stage small business with core competence in compact cone-beam CT technology and a corporate mission to improve the quality and efficiency of diagnosis and treatment via point-of-care imaging systems. Our flagship product MiniCAT has performed millions of diagnostic low-dose CT scans in otolaryngology and allergy clinics to date, cumulatively saving the US population thousands of Sieverts of patient radiation effective dose, as well as over 10,000 person-years of personal productivity.

New York, New York  
<https://www.wearshade.com>

**YouV Labs. Shade (aka YouV Labs, Inc.)**  
 Medical Devices

**Technology Name:** Shade, Wearable UV Dosimeter

**Technology Description:** The technology is based on a proprietary detector (trade secret semiconductor chemistry + device packaging). This distinguishes Shade from previous





sensors that were either not real time, such as film and polysulphone detectors, or not accurate, such as the discontinued Microsoft Band which measures visible light and inaccurately guesses at UV. Well designed and insightful mobile applications, built on the principles of behavior change, will be essential to the company's success.

**Company Description:** Shade is the first wearable UV sensor + mobile app that is accurate and sensitively measures UV. Designed for adjuvant care to the UV sensitive patient, shade tracks current and total personal exposure and provides realtime alerts. Shade is in clinical studies and began shipping Feb 2017.